

REMARKS/ARGUMENTS

Applicant thanks the Examiner for the telephone interview granted on October 13, 2006 during which the Examiner and Applicant's attorney discussed generally the rejections in the final office action. In addition, Applicant's attorney proposed certain amendments to focus the subject matter of the claims on certain methods for inhibiting the growth of bacteria and fungi in closed environments and to clarify that the methods do not encompass human therapies but rather relate to control of post harvest pathogens and contaminators of buildings. Applicant's attorney also proposed amending the specification to include an example regarding post harvest fruit from one of the applications to which the present application claims priority. These changes are reflected in the above amendments to the claims and to the specification.

Applicant has amended the specification so that it specifies in the first paragraph that the present application is a continuation-in-part of Application No. 10/408,209, which is in turn a continuation-in-part of Application No. 10/121,740, which has now issued as Patent No. 6,911,338. This is consistent with Applicant's filing documents and with the relationship set forth in the filing receipt mailed on April 16, 2004. Therefore, this amendment does not add new matter to the specification.

In addition, Applicant has amended the specification so that it includes an example from Application No. 10/121,740. Because Application No. 10/121,740 was incorporated by reference into the present application, as originally filed, this amendment does not add new matter to the specification. In accordance with MPEP Section

608.01(p), enclosed is a declaration from Applicant's attorney stating that the amendment does not add new matter to the specification and explaining that Application No. 10/121,740 was incorporated by reference into the originally filed present application.

Support for the claim amendments may be found throughout the specification. In particular, support for amended Claim 72 may be found, for example, on page 13. Paragraph 60 notes that the compositions of the present invention inhibit the growth of or kill pathogens that contaminate food and have been found to be lethal to contaminants of homes and public buildings. Further, paragraphs 61 and 63 set forth several habitats of the target organisms recited in the claims that are closed environments, including containers of post harvest food and buildings.

In addition, the examples provide support for the claim amendments. Example 10, which starts on page 29, describes use of the compositions of the present invention to inhibit the growth of a post harvest pathogen, *Rhizoctonia solani*, in a closed environment (i.e., a sealed Petri plate). Example 11, which is set forth in paragraph 106 and which was added via this Amendment, shows how compositions produced by *Muscodor*, which include the volatile organic compounds recited in the claims, are used to inhibit the growth of another fungus, *Penicillium expansum*, in a closed container of post harvest food (i.e., apples).

Support for new claims 83-89 may also be found throughout the specification. Specifically, support for Claims 83-84 and 86 may be found, for example, on page 13 in paragraphs 60-61 and in newly added Example 11 in paragraph 106. Support for Claim

85 may be found, for example, in Example 10, which starts on page 29. Support for Claims 87-89 may be found on page 13 in paragraphs 61 and 63.

Rejections of Claims 80-82 under 35 U.S.C. Section 112, First Paragraph (Written Description)

The Examiner rejected Claims 80-82 under 35 U.S.C. Section 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the invention. Support for Claims 80-82, as amended, may be found, for example, in Table 8 on page 32. See, in particular, Mixtures 11-13, 19-20 and 22 as to Claim 80; Mixtures 17-18 and 23 as to Claim 81; and Mixtures 14-16 and 21 as to Claim 82. In light of this support, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Rejection of Claims 72-82 under 35 U.S.C. Section 112, Second Paragraph (Indefiniteness)

The Examiner also rejected Claims 72-82 under 35 U.S.C. Section 112, second paragraph as being indefinite. The examiner's specific rejections are set forth below.

"exposing the organism or the habitat of the organism to an effective amount"

The Examiner asserts that the phrase "exposing the organism or a habitat of the organism to a pesticidally effective amount" is indefinite. In the claims, as amended, Applicant has replaced the word "exposing" with "contacting." As explained in the Amendment and Response dated July 5, 2006, contact must be made eventually in order

to obtain inhibition of the target organism. The use of the word “exposing” was simply intended to emphasize that the effective amount of the claimed composition did not need to be in contact initially with the target organism. Therefore, replacement of “exposing” with “contacting” is not intended to change the claim scope, but simply to clarify the subject matter of the claims. In light of this amendment, Applicant believes the rejection has been rendered moot and requests its reconsideration and withdrawal.

“effective amount”

The Examiner also asserts that use of the term “an effective amount” is unclear since “a maximum but not a minimum is defined for some of the volatile compounds and the intended microbe is not defined with any particularity.” The claims, as amended, recite a minimum amount, indicating that levels of the various volatile organic compounds must be between zero and a maximum. In addition, the claims, as amended, define the intended microbe with particularity, indicating that the microbe must be a bacterium or a fungus that contaminates post harvest food or buildings. In light of these amendments, Applicant requests reconsideration and withdrawal of this rejection.

“soil surrounding plants”

The Examiner also asserts that the phrase “soil surrounding the plants” in Claims 72 and 76 is unclear. Claim 72, as amended, does not include this claim language and Claim 76 has been cancelled, rendering this rejection moot. Therefore, Applicant respectfully requests its reconsideration and withdrawal.

Rejection of Claims 72-82 under 35 U.S.C. Section 112, First Paragraph (Enablement)

The Examiner also rejected Claims 72-82 under 35 U.S.C. Section 112 first paragraph, asserting lack of enablement. Specifically, the Examiner notes that the specification, as filed, does not provide sufficient guidelines for the inhibition of any and all microbes. This rejection is rendered moot by the claims, as amended, which are limited to methods for inhibiting the growth of a bacterium or a fungus that contaminates post harvest food or buildings.

In addition, the experimental results provided in the Inventor Declaration filed along with the Amendment and Response dated July 5, 2006 show that the one of ordinary skill in the art could, with routine experimentation, apply the teachings in the specification to inhibition of fungi and bacteria that infect post harvest food (e.g., *Penicillium expansum*, *Rhizoctonia solani*, *Aspergillus niger*, *Geotrichum citri-aurantii*, *Erwinia carotorova* and *Cladosporium cladosporioides*) and contaminate buildings (*Penicillium expansum*, *Aspergillus niger* and *Cladosporium cladosporioides*) in a closed environment. As described in the Inventor Declaration, one of ordinary skill in the art could vary dosages of the claimed compositions in a routine manner to determine amounts needed to achieve growth inhibition of various pathogens.

In addition, at the time of filing the patent application, those of ordinary skill in the art knew how to use chemical fumigants in order to obtain inhibition of various bacteria and fungi in closed environments. In Example 11, which was recently added to the specification, Applicant uses volatile organic compounds produced by *Muscodor* to

inhibit the growth of a post harvest pathogen in a closed environment; i.e., a container of food.

Similarly, those of skill in the art, have, since at least the time of filing of the present application, applied chemical fumigants to closed rooms in buildings and to tented buildings in order to inhibit the growth of target organisms. For example, attached is a print-out from the website of the Environmental Protection Agency that describes application of chlorine dioxide gas to buildings exposed to anthrax bacteria in 2001 and 2002 for the purposes of decontamination. The print-out notes that routine tests were conducted to determine optimal chlorine dioxide gas concentration and contact time necessary to obtain successful decontamination.

In short, the state of the art at the time of filing the application was such that one of ordinary skill could, through routine experimentation, practice the claimed invention, with the guidance provided in the specification. Therefore, the claims, as amended, are enabled, and Applicant respectfully requests reconsideration and withdrawal of this rejection.

Rejections under 35 U.S.C. Section 102(b)

Robinson Reference

The Examiner rejected Claims 72, 73, 76, 77, 78 and 80 in light of Robinson. The claims, as amended, do not disclose use of isobutyl alcohol, alone, to inhibit fungi. Because the claim amendments render the rejection moot, Applicant respectfully requests its reconsideration and withdrawal.

CONCLUSION

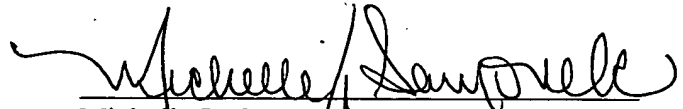
Applicant has enclosed a Request for Continued Examination and a check for \$395 to cover the required fees. In addition, Applicant has enclosed a New Power of Attorney form and the related Statement of Assignee under 37 C.F.R. 3.73(b).

In light of the above-amendments and remarks, Applicant believes that each of the presently pending claims in this application is in condition for allowance.

Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. The Examiner is invited to call the undersigned at the number provided below in order to discuss any aspect of this response.

Respectfully submitted,

Dated: 11/30/06


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